

REMARKS

Claims 1-20 are pending in the application upon entry of the amendments. The Title and claims 1 and 12 have been amended for consistency and to better describe certain aspects of the invention. Favorable reconsideration in light of the amendments, the new claims, the Terminal Disclaimer, and the remarks which follow is respectfully requested.

The Amendments

Claims 1 and 12 have been amended to better describe the invention. Specifically, the relationship between the diffraction-limited parameter of an image transfer medium (such as a lens or set of lenses) and the projected pixels size in the object field of view is better described. Support for the amendments exists in the specification.

The Title Objection

The Specification has been objected to for the Title. The title has been amended (see also the Preliminary Amendment) to better reflect the subject matter of the claims.

The Double Patenting Rejection

Claims 1-20 have been rejected under the judicially created doctrine of obviousness-type double patenting over co-pending patent application Serial No. 10/616,829. The subject application and patent application Serial No. 10/616,829 are owned by the same entities. The enclosed Terminal Disclaimer therefore renders this rejection moot.

The Novelty Rejection

Claims 1, 2, 7, 9, 12, and 13 have been rejected under 35 U.S.C. § 102(e) over Blumenfeld et al. Blumenfeld et al relates to detecting patterns of DNA hybridization on

a DNA chip. Excitation radiation is directed to a DNA chip with an array of DNA spots, the spots then emit light through an optional lens, the light is then collected by pixels of a CMOS detector.

To establish anticipation, each and every claim feature must be disclosed in a single cited art document. Claim 1 requires a semiconductor imaging system containing an image transfer medium having a diffraction-limited parameter adapted to the receptor pitch parameter such that the diffraction-limited parameter in an object field of view is approximately matched to a projected receptor pitch parameter in the object field of view, and a semiconductor workstation that analyzes critical dimensions of a semiconductor structure. Blumenfeld et al fails to disclose several features of claim 1.

Blumenfeld et al fails to disclose, teach, or suggest an image transfer medium having a diffraction-limited parameter adapted to the receptor pitch parameter such that the diffraction-limited parameter in an object field of view is approximately matched to a projected receptor pitch parameter in the object field of view. Columns 5 and 6 of Blumenfeld et al mentions matching a DNA spot size with a pixel/group of pixels. The DNA chip contains an array of DNA spots, each DNA spot is a site of DNA deposition which is imaged to determine if hybridization occurs. A diffraction limited spot is a parameter of an image transfer medium, such as a lens. The diffraction limited spot represents the smallest resolvable feature capable of being imaged by the lens. A DNA spot and the diffraction limited spot of an image transfer medium are completely different, not equivalent, and not interchangeable. Blumenfeld et al fails to disclose, teach, or suggest the diffraction limited spot size of the lens it employs (in fact, as shown by Figure 3A, a lens is NOT even required in the device of Blumenfeld et al). Since Blumenfeld et al does not disclose each and every feature of claim 1, Blumenfeld et al cannot anticipate claims 1, 2, 7, and 9.

Blumenfeld et al also fails to disclose, teach, or suggest a semiconductor workstation that analyzes critical dimensions of a semiconductor structure. The device of Blumenfeld et al detects DNA hybridization. However, detecting DNA hybridization is

NOT equivalent nor interchangeable with analyzing critical dimensions of a semiconductor structure. One skilled in the art would not have been motivated to analyze critical dimensions of a semiconductor structure based on a teaching to detect DNA hybridization. For this additional reason, Blumenfeld et al cannot anticipate claims 1, 2, 7, and 9.

Claim 12 requires a digital microscopic semiconductor imaging system containing an image transfer medium having a diffraction-limited spot size in an object plane matched to about a projected pixel size in an object plane. Blumenfeld et al fails to disclose, teach, or suggest a digital microscopic semiconductor imaging system containing an image transfer medium having a diffraction-limited spot size in an object plane matched to about a projected pixel size in an object plane. This is because Blumenfeld et al fails to discuss the diffraction-limited spot size of its lens in the object plane and its projected pixel size in the object plane. In addition to mentioning these two parameters, Blumenfeld et al fails to teach approximately matching the two parameters in the object plane (which is not the image plane, at the surface of the detector). As thoroughly discussed above, a DNA spot and the diffraction limited spot of an image transfer medium are NOT the same. Since Blumenfeld et al does not disclose each and every feature of claim 12, Blumenfeld et al cannot anticipate claims 12 and 13.

The Obviousness Rejection

Claims 3-6, 8, 10, 11, 14-18, and 20 have been rejected under 35 U.S.C. § 103(a) over Blumenfeld et al. Due to the fundamental deficiencies of Blumenfeld et al (Blumenfeld et al fails to teach or suggest an image transfer medium having a diffraction limited parameter adapted to the receptor pitch parameter such that the diffraction limited parameter in an object field of view is approximately matched to a projected receptor pitch parameter in the object field of view), cannot render claims 3-6, 8, 10, 11, 14-18, and 20 obvious.

Specifically regarding independent method claim 16, claim 16 requires collecting light on a pixelated sensor through an image transfer medium, where the projected pixel have a size in the object plane approximately matched with diffraction-limited spot size of the image transfer medium in the object plane. Blumenfeld et al fails to teach or suggest a method involving collecting light on a pixelated sensor through an image transfer medium, where the projected pixel have a size in the object plane approximately matched with diffraction-limited spot size of the image transfer medium in the object plane. One skilled in the art would not have been motivated by Blumenfeld et al to practice the method of claim 16.

Petition for Extension of Time

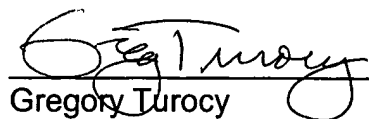
A request for a one month extension of time is hereby made (small entity status has been established). A Credit Card charge form is enclosed herewith to pay the petition fees.

Should the Examiner believe that a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 50-1063.

Respectfully submitted,

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